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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/758,268   | 01/16/2004  | Kozo Katogi          | 056207.53169US      | 5133             |
| 23911  | 7590        | 08/10/2005           | EXAMINER            |                  |
| CROWELL & MORING LLP<br>INTELLECTUAL PROPERTY GROUP<br>P.O. BOX 14300<br>WASHINGTON, DC 20044-4300 |             |                      | TRAN, DIEM T        |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3748                |                  |

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/758,268

Applicant(s)

KATOGLI ET AL.

Examiner

Diem Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-19 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

Claims 7, 14-16 are objected to because of the following informalities:

-In claims 7, 14, lines 1, 2, --at least one of-- should be inserted before “a means” and “and/or” should be changed to --and--.

-In claim 15, line 3, “of” should be changed to --or--.

-In claim 16, line 2, “stoppe d” should be changed to --stopped--. Appropriate corrections are required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claims 1, 2, 6, 11, 12, 18, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Rohde et al. (US Patent 3,771,921).***

Regarding claims 1, 2, 18, 19, Rohde discloses an exhaust gas purifier comprising a catalyst installed in the exhaust pipe of an engine and a secondary air pump for supplying secondary air into the exhaust pipe, wherein said secondary air pump is operated in accordance with the operating condition of the engine (i.e. after the engine has stopped) (see col. 1, lines 47-50, col. 5, lines 36-39, 44-51).

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Regarding claim 6, Rohde further discloses that said secondary air pump is operated for a specified length of time after the engine has stopped (see col. 5, lines 44-48).

Regarding claim 11, Rohde further discloses that said secondary air inlet is provided near the exhaust valve of the engine (see Figure 1, col. 2, lines 31-40).

Regarding claim 12, Rohde further discloses that said secondary air inlet (20) is provide in the upstream side of the catalyst (17) (see Figure 1).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claims 3, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (US Patent 3,771,921) in view of Affeldt et al. (US Patent 5,088,463).***

Regarding claims 3, 4, Rohde discloses all the claimed limitations as discussed in claim 2 above, however, fails to disclose a fuel pressure regulating means for regulating the fuel pressure in a fuel pipe, wherein the fuel pressure in said fuel pipe is reduced after the engine has stopped. Affeldt teaches that it is conventional in the art, to utilize a fuel pressure regulating means for regulating the fuel pressure in a fuel pipe, wherein the fuel pressure in said fuel pipe is reduced after the engine has stopped (see abstract, lines 1-10).

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It is obvious for one having ordinary skill in the art, to have utilized the teaching of Affeldt in the Rohde device, since the use thereof would have been conventional in the art.

*Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (US Patent 3,771,921) in view of Affeldt et al. (US Patent 5,088,463) as applied to claim 3 above, and further in view of Yoshiume et al. (US Patent 5,785,025).*

Regarding claim 5, the modified Rohde device discloses all the claimed limitations as discussed in claim 3 above, however, fails to disclose that the fuel pressure in the fuel pipe is reduced by rotating the fuel pump in reverse. Yoshiume teaches that it is conventional in the art, to rotate the fuel pump in reverse to reduce a fuel pressure in the fuel pipe (see col. 2, lines 59-62).

It is obvious for one having ordinary skill in the art, to have utilized the teaching of Yoshiume in the modified Rohde device, since the use thereof would have been conventional in the art.

*Claims 7, 14, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (US Patent 3,771,921) in view of Tachibana (US Patent 6,192,678).*

Regarding claims 7, 14, 16, Rohde discloses all the claimed limitations as discussed in claim 2 above, however, fails to disclose that said secondary air pump is operated when the exhaust pipe temperature is outside a specified range. Tachibana teaches that it is conventional in the art, to utilize a secondary air pump being operated

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when the catalyst temperature is low (the exhaust gas temperature can be derived from the catalyst temperature) (see col. 8, lines 2-8).

It is obvious for one having ordinary skill in the art, to have utilized the teaching of Tachibana in the Rohde device, since the use thereof would have improved the efficiency of the emission control system.

*Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (US Patent 3,771,921) in view of Kinugasa et al. (US Patent 5,979,157).*

Regarding claim 13, Rohde discloses all the claimed limitations as discussed in claim 2 above, however, fails to disclose that said secondary air inlet is provided in the downstream side of the catalyst. Kinugasa teaches that it is conventional in the art, to utilize a secondary air inlet being provided in the downstream side of the catalyst (see Figure 6).

It is obvious for one having ordinary skill in the art, to have utilized the teaching of Kinugasa in the Rohde device, since the use thereof would have been conventional in the art.

*Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (US Patent 3,771,921) in view of Tachibana (US Patent 6,192,678) as applied to claim 14 above, and further in view of Takeshima et al. (US Patent 5,233,830).*

Regarding claim 15, the modified Rohde device discloses all the claimed limitations as discussed in claim 14 above, however, fails to disclose a means for measuring an ambient temperature, wherein said secondary air pump is operated in

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accordance with the measured ambient temperature. Kinugasa teaches that it is conventional in the art, to measure an ambient temperature and to operate the air pump in accordance to the ambient temperature (see step 401 in Figure 12).

It is obvious for one having ordinary skill in the art, to have utilized the teaching of Takeshima in the modified Rohde device, since the use thereof would have prevented water vapor in the exhaust gas from condensing.

*Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (US Patent 3,771,921) in view of Takeshima et al. (US Patent 5,331,809).*

Rohde discloses all the claimed limitations as discussed in claim 2 above, however, fails to disclose that the secondary air pump operates intermittently. Takeshima teaches that it is conventional in the art, to utilize a secondary air pump being operated intermittently to supply air into the exhaust gas system (see col. 4, lines 10-13).

It is obvious for one having ordinary skill in the art, to have utilized the teaching of Takeshima in the modified Rohde device, since the use thereof would have been conventional in the art.

#### *Allowable Subject Matter*

Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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*Conclusion*

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:30 a.m.- 5:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).

DT



Diem Tran  
Patent Examiner  
Art unit 3748



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